

Application No.: 10/020,512
Amendment dated: July 28, 2005
Reply to Office Action dated: May 25, 2005

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) An individually targeted content delivery method comprising:
- anonymously collecting event data associated with at least one set top box in a defined region in a privacy compliant manner;
- deriving at least one user model for each set top box ~~based on~~ ^{aggregated} in said region by using the collected event data with demographic data for the population in the region to estimate the fraction of people having one or more demographic characterizations that experience some one or more defined events at the set top boxes in the region. said estimate(s) comprising a regional model applicable to all set top boxes in the region, and using said regional model with event observations at the particular set top box to calculate which demographic specification most closely matches viewing behavior at the particular set top box;
- storing the derived at least one user model and an identifier corresponding to the set top box from which the at least one user model is derived in a storage means for later retrieval;
- selecting content and associated content attributes to be delivered to at least one ~~set top box~~ of said set top boxes in the region;
- delivering the selected content and content attributes to the set top box;
- causing the selected content to be presented by the at least one set top box when a correlation exists between the content attributes and the user model associated with the set top box.

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2. (Cancelled)
3. (Original) The individually targeted content delivery method of Claim 1, wherein data collected from said set top box includes a record of user interaction with said set top box.
4. (Original) The individually targeted content delivery method of Claim 1, further comprising the step of transmitting said data to a privacy server, which removes all personally identifiable information from said data before allowing said data to be used.
5. (Previously Presented) The individually targeted content delivery method of Claim 1, wherein said derived user model is based on user interests.
6. (Original) The individually targeted content delivery method of Claim 1, wherein said derived user model is based on a derived user demographic profile.
7. (Previously Presented) The individually targeted content delivery method of Claim 6, wherein said derived user model is further based on user interests.
8. (Original) The individually targeted content delivery method of Claim 1, wherein said at least one set top box user model is derived using an inverse demographic matrix method.

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9. (Original) The individually targeted content delivery method of Claim 1, wherein said content is repeatedly presented on said selected set top boxes until it has been determined that a user has experienced said content.

10. (Original) The individually targeted content delivery method of Claim 1, wherein said content must be experienced before user selected content can be experienced.]

11. (Original) The individually targeted content delivery method of Claim 1, wherein said correlation is determined by said set top box.

12. (Original) The individually targeted content delivery method of Claim 1, wherein said correlation is determined prior to transmitting said content to said set top box, and wherein said transmitting step occurs only when said correlation is high enough to warrant said set top box presenting said content.

13. (Currently Amended) An individually targeted content delivery method comprising the steps of:

anonymously collecting set top box interaction data associated with at least one set top

box in a defined region in a privacy compliant manner;

deriving from said data at least one user model for each set top box using a user

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demographic profile and a user interest profile determined using an inverse demographic matrix method ^{aggregated} ~~that uses demographic data for the population in the region to estimate the~~ fraction of people having one or more demographic characterizations that experience some one or more defined events at the set top boxes in the region, said estimate(s) comprising a regional model applicable to all set top boxes in the region, and using said regional model with event observations at the particular set top box to calculate which demographic specification most closely matches viewing behavior at the particular set top box;

storing said derived at least one user model and an identifier corresponding to the set top box from which said at least one user model is derived in a storage means for later retrieval;

selecting content and associated content characteristics to be delivered to at least one set top box;

delivering said content to said set top box;

causing said selected content to be presented by said at least one set top box when a

correlation between said content attributes and said user model associated with said set top box.

14. (Original) The individually targeted content delivery method of Claim 13, wherein said correlation is determined by said set top box.

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15. (Original) The individually targeted content delivery method of Claim 13, wherein said correlation is determined prior to transmitting said content to said set top box, and wherein said transmitting step occurs only when said correlation is high enough to warrant said set top box presenting said content.

16. (Currently Amended) An individually targeted content delivery method comprising the steps of:

anonymously collecting set top box interaction data associated with at least one set top box in a defined region in a privacy compliant manner;

transmitting said set top box interaction data to a privacy server, which strips personally identifiable information from said data prior to allowing said data to be used;

deriving from said data at least one user model for each set top box using a user demographic profile and user interest profile as determined using an inverse demographic matrix ^{aggregated} that uses demographic data for the population in the region to estimate the fraction of people having one or more demographic characterizations that experience some one or more defined events at the set top boxes in the region. said estimate(s) comprising a regional model applicable to all set top boxes in the region, and using said regional model with event observations at the particular set top box to calculate which demographic specification most closely matches viewing behavior at the particular set top box;

storing said derived at least one user model and an identifier corresponding to the set

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top box from which said at least one user model is derived in a storage means for later retrieval;

selecting content and associated content characteristics to be delivered to at least one set top box;

delivering said content to said set top box; and

causing said selected content to be presented by said at least one set top box when a correlation between said content attributes and said user model associated with said set top box exists.

17. (Original) The individually targeted content delivery method of Claim 16, wherein said correlation is determined by said set top box.

18. (Original) The individually targeted content delivery method of Claim 16, wherein said correlation is determined prior to transmitting said content to said set top box, and wherein said transmitting step occurs only when said correlation is high enough to warrant said set top box presenting said content.

19. (Currently Amended) An individually targeted content delivery method comprising the steps of:

anonymously collecting set top box interaction data associated with at least one set top

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box in a defined region in a privacy compliant manner;

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deriving from said data at least one user model for each set top box using a user demographic profile and user interest profile as determined using an inverse demographic matrix that uses aggregated demographic data for the population in the region to estimate the fraction of people having one or more demographic characterizations that experience some one or more defined events at the set top boxes in the region, said estimate(s) comprising a regional model applicable to all set top boxes in the region, and using said regional model with event observations at the particular set top box to calculate which demographic specification most closely matches viewing behavior at the particular set top box;

storing said derived at least one user model and an identifier corresponding to the set top box from which said at least one user model is derived in a storage means for later retrieval;

selecting content and associated content characteristics to be delivered to at least one set top box;

delivering said content to said set top box; and

causing said selected content to be presented by said at least one set top box when a correlation between said content attributes and said user model associated with said set top box exists, and until it is determined that said content has likely been experienced.

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20. (Original) The individually targeted content delivery method of Claim 19, wherein said content must be experienced before user selected content can be experienced.

21. (Original) The individually targeted content delivery method of Claim 19, wherein said correlation is determined by said set top box.

22. (Original) The individually targeted content delivery method of Claim 19, wherein said correlation is determined prior to transmitting said content to said set top box, and wherein said transmitting step occurs only when said correlation is high enough to warrant said set top box presenting said content.

23. (Currently Amended) An individually targeted content delivery method comprising the steps of:

anonymously collecting set top box interaction data associated with at least one set top box in a defined region in a privacy compliant manner;

transmitting said set top box interaction data to a privacy server, which strips any personally identifiable information from said data prior to allowing said data to be used by the system;

deriving from said data at least one user model for each set top box using a user demographic profile and user interest profile as determined using an inverse demographic

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aggregated

matrix that uses demographic data for the population in the region to estimate the fraction of people having one or more demographic characterizations that experience some one or more defined events at the set top boxes in the region, said estimate(s) comprising a regional model applicable to all set top boxes in the region, and using said regional model with event observations at the particular set top box to calculate which demographic specification most closely matches viewing behavior at the particular set top box;

storing said derived at least one user model and an identifier corresponding to the set top box from which said at least one user model is derived in a storage means for later retrieval;

selecting content and associated content characteristics to be delivered to at least one set top box;

delivering said content to said set top box; and

causing said selected content to be presented by said at least one set top box when a correlation between said content attributes and said user model associated with said set top box exists, and until it is determined that said content has likely been experienced.

24. (Original) The individually targeted content delivery method of Claim 23, wherein said content must be experienced before user selected content can be experienced.

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25. (Original) The individually targeted content delivery method of Claim 23, wherein said correlation is determined by said set top box.

26. (Original) The individually targeted content delivery method of Claim 23, wherein said correlation is determined prior to transmitting said content to said set top box, and wherein said transmitting step occurs only when said correlation is high enough to warrant said set top box presenting said content.

27. (Currently Amended) A targeted advertising delivery system, comprising:

a plurality of set top boxes in a defined region;

a privacy server, communicatively connected to said plurality of set top boxes, that anonymously collects set top box interaction data in a privacy compliant manner;

a data center, communicatively connected to said privacy server;

a content input means, which allows a content owner to submit content to the data center; and

a user model selector, which allows a content owner to select user model attributes

corresponding to a group to which particular content is to be delivered, the user model
aggregated
attributes derived by using demographic data for the population in the region to estimate the
fraction of people having one or more demographic characterizations that experience some
one or more defined events at the set top boxes in the region, said estimate(s) comprising a

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regional model applicable to all set top boxes in the region, and using said regional model with event observations at the particular set top box to calculate which demographic specification most closely matches viewing behavior at the particular set top box.

28. (Original) The targeted advertising delivery system of Claim 27, in which said privacy server is responsible for removing personal information from communications received from said set top box and assigning a unique code to such data for identification purposes.

29. (Original) The targeted advertising delivery system of Claim 27, in which said data center is responsible for receiving data and associated unique identifiers from said privacy server and determining at least one user model for each set top box based on said received data.

30. (Currently Amended) A computer program product for targeted advertising delivery comprising a computer usable medium having a computer readable program code means embodied in the computer usable medium for causing an application program to execute on a computer system, the computer readable program code comprising:

computer readable program code means for anonymously collecting set top box events
for a set top box in a defined region;

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computer readable program code means for deriving, in a privacy compliant manner, ^{aggregated} at least one user model based on said collected set top box events by using demographic data for the population in the region to estimate the fraction of people having one or more demographic characterizations that experience some one or more defined events at the set top boxes in the region, said estimate(s) comprising a regional model applicable to all set top boxes in the region, and using said regional model with event observations at the particular set top box to calculate which demographic specification most closely matches viewing behavior at the particular set top box;

computer readable program code means for storing said at least one user model in a database of user models;

computer readable program code means for storing content to be delivered to a set top box;

computer readable program code means for selecting from said stored user models and said stored content those user models and content which have a high degree of correlativity;

computer readable program code means for transmitting said selected content to a set top box associated with said selected user model; and

computer readable program code means for presenting said content via said set top box.